

REMARKS

Claims 1-20 are currently pending in the application. Claim 1 is amended, claim 21 is new, claim 13 is withdrawn, and claims 7 and 9 are cancelled. Claims 1-6, 8 and 10-20 have been subjected to a species and thus Applicants elected species I, depicted in Figures 1 through 3. Species I reads on claims 1-6, 8, 10-12 and 14-20. Applicants note that claims 1-6, 8, 10-11 and 14-20 are all generic with respect to both Species.

Added Claim 21

New claim 21 has been added, support for which is found in original claims 14 and 18, in the specification at p. 2, line 34 through p. 3 line 4; p. 6 lines 27-34; p. 8 lines 11-21, and in Figs. 1-2, among other places. New claim 21 arises from original claim 18, but is now re-written in independent form having all the limitations of the base claim (original claim 14) and any intervening claim (there is no intervening claim between claim 18 and claim 14). As indicated by the Examiner on p. 7, claim 18, if re-written in independent form, would be allowable. Applicant therefore respectfully submits that new claim 21 is allowable.

Rejections Under 35 U.S.C. 102(b)

Anticipation by US 5,954,250

Claims 1-6, 8, 10-11, 14-17, and 19 are rejected as anticipated by Hall et al. (US 5,954,250, herein after "US '250"). The Office Action states that US '250 discloses all the features of independent claim 1. Specifically, the Office Action (see p. 2) references Fig. 2 of US '250, and states "that the harness is adapted to be arranged in use to be worn by a user of breathing apparatus and to adopt and (sic) operational configuration when so worn (Figs 1, 2, 5, 11-15), wherein the resilient characteristics of the panel are such that the harness retains an operational configuration whilst not in use...."

The harness of claim 1 requires the following elements: (a) at least one resilient flexible shoulder panel; and (b) a flexible mounting plate for receiving a cylinder of breathing gas. In addition, the harness is adapted to: (1) be arranged in use to be worn by a user of breathing apparatus; and (2) adopt an operational configuration when so worn. Finally, the resilient characteristics of the panel are such that the *harness* substantially retains an operational configuration whilst not in use.

US '250 does not disclose, teach or suggest at least one *resilient flexible shoulder pad*, and further does not disclose, teach or suggest a *flexible mounting plate*. While US '250 states at col. 3, lines 61-64 that the back plate **21** of the harness is *faced* with a resilient material, the harness itself, including the back plate, comprises a hard plastic material that is described in US '250 as *rigid* (see US '250, col. 3, lines 32-36 and lines 56-62). The Office Action also states that US '250 discloses a *flexible mounting plate* for receiving a cylinder of breathing gas. As stated above, the harness of US '250 comprises a *rigid* back plate **21** connected to a *rigid* upstanding portion **22** of waist plate **1**, deemed by the Examiner to be a flexible mounting plate. But **22** is not a *flexible mounting plate*, it is described in US '250 as a *rigid* upstanding portion of *rigid* waist plate **1** that is merely *faced* with a resilient material **23**, the resilient material being present to pad the *rigid* upstanding portion **22** for reasons of comfort, not conformational resilience, similar to the resilient material **23** that lines rigid back plate **21** (see US '250, col. 3, lines 32-36 and lines 61-64).

Thus, the so-called mounting plate **22** of US '250 is not flexible, as required by the mounting plate of the present invention. Having a single piece back plate as required by claim 1 that is flexible and resilient to deformation, and a flexible mounting plate for receiving a cylinder of gas, unlike the *two-piece rigid* upstanding portion **22** and *rigid* back plate **21** of US '250, means that the harness of the instant invention is simple to manufacture and is flexible. A flexible harness is more comfortable for a user to wear since it conforms to the shape of the wearer's body. Also, a flexible harness negates the need for mechanical joints, as is required with the harness disclosed in US '250 (see Figure 9). Mechanical joints tend to wear out and it is therefore desirable to avoid them where possible.

The Office Action also states that US '250 discloses all of the features of independent claim 14; Applicant respectfully disagrees. Although US '250 does disclose a harness having an attachment means comprising a mounting means arranged to engage releasably a mounting portion of a cylinder, it does *not* disclose a *retaining means* arranged to retain a *retaining device* for a *cylinder*. US '250 does describe how clips **27** "retain the back plate **21** in a position on the upstanding portion **22** in such a manner that the back plate **21** can pivot..." (see US '250, col. 4, lines 1-8). However, the Office

Action has failed to explain what features disclosed in US '250 are considered to be the "retaining means" to retain a retaining device *for a cylinder*.

Independent claim 14 is basically directed to the embodiment illustrated in Figures 1-3 of the instant application. In this embodiment, a gas cylinder is located in a fabric holster and the fabric holster is permanently attached to the belt of the harness by straps (**30, 31**), otherwise known as the retaining means, and is releasably attached to the belt via a lug **26** on the holster and a cooperating U-shaped bracket **28** on the belt otherwise known as the mounting means. This enables the gas cylinder to either be closely attached to the wearer's hip (i.e. when it is attached by both the mounting means and the retaining means) or to be loosely attached to the user, in between the user's legs, for example, by just the straps (i.e. the retaining means). This arrangement provides the advantage that the wearer may negotiate small openings, for example, by releasing the cylinder of gas from the hip whilst ensuring that it does not become detached completely. US '250 does not disclose a harness like the harness as claimed in claim 14 because (1) there is no retaining means in US '250 for a cylinder, and (2) neither does it disclose a harness providing these benefits.

Independent claim 19 is also rejected as being anticipated by US '250, but again, Applicant respectfully disagrees. US '250 does not disclose two connectors, one releasable and one permanent *for connecting a cylinder*. Columns 7-8 and Figs. 21-22 and 26-28 of US '250, cited in the Office Action at p. 5 as disclosing the two connectors, one detachable and one non-detachable. However, this is not what these sections and figures of US '250 disclose. Col. 7-8 and Figures 21, 22, 26-28 refer to and show the assembly and connectors of the harness which allow it to be adjusted according to the wearer's height, for comfort and correct fit. Nowhere is there any mention, disclosure or drawing of two connectors *for connecting a cylinder*, one detachable and one non-detachable.

In contrast, the embodiment of the invention claimed in independent claim 19 requires "at least two connectors *for connecting a cylinder* containing a fluid for breathing thereto, wherein a first connector is arranged *for connecting a cylinder detachably*, a second connector is arranged *for connecting the cylinder non-detachably* ...". Therefore, US '250, which does not teach or disclose a harness with at least two

connectors for connecting a cylinder as required in claim 19, cannot and does not anticipate claim 19.

Anticipation by US 4,979,659

In addition, claims 1 and 12 are rejected as anticipated by Boyd (US 4,979,659 – herein after “US ‘659”) because it is asserted that US ‘659 discloses the elements of claim 1 in Figures 1-3 and discloses the requirement of claim 12 that the flexible panel adapted to be arranged in use to pass around the wearer over one shoulder in Figure 1.

With respect to independent claim 1, US ‘659 does not disclose a shoulder panel made of resilient material so that it retains a “worn configuration” when it is not being worn. First, US ‘659 does not teach or disclose a shoulder panel at all. Second, US ‘659 does not disclose a flexible mounting plate. Contrary to what is stated in the Office Action, element 21 of US ‘659 is not a flexible mounting plate, it is simply a flexible looped basket-like assembly for supporting the bottom of a gas cylinder. Third, column 3 lines 1-3 of US ‘659 states that the “components of the illustrated harness **12** are fabricated of water and mildew resistant canvas”.

In contrast, claim 1 requires a “harness comprising at least one resilient flexible shoulder panel, ...wherein the resilient characteristics of the panel are such that *the harness substantially retains an operational configuration whilst not in use* and wherein the harness further includes a flexible mounting plate for receiving a cylinder of breathing gas” (emphasis added). Therefore, in addition to not disclosing either a resilient flexible shoulder panel or a flexible mounting plate, the canvas harness disclosed in US ‘659 will fall limp when not in use, it will not “substantially retain[s] an operational configuration whilst not in use” as required by claim 1.

For the reasons just discussed, US ‘659 also does not anticipate claim 12, which depends from claim 1. Moreover, US ‘659 does not disclose a harness that passes “around the wearer over one shoulder, in the manner of a bandolier, or sash.” US ‘659 merely discloses a harness that can be thrown over one shoulder, not a harness that goes diagonally around the body like a sash or bandolier.

For at least the reasons detailed above, Applicant respectfully submits that claims 1, 8, 10, 11, 14-17 and 19 are not anticipated by US ‘250, and claims 1 and 12 are not anticipated by US ‘659, and so request withdrawal of the anticipation rejections.

Rejections Under 35 U.S.C. 103(a)

Obviousness by US 5,954,250

Claims 2-6 are rejected as obvious in light of US '250. US '250 does not disclose, teach or suggest all the elements of claim 1 (as detailed above) and therefore cannot disclose, teach or suggest the additional elements required by claims 2-6. Claim 2 requires that the flexible panel be of a composite material, and claim 3 requires that the composite material comprise a foam. In contrast, US '250 discloses a rigid waist plate **1**, with rigid upstanding portion **22** connected to rigid back plate **21**. The rigid material in US '250 is described as a "plastics material such as the linear polyamide nylon) faced with padding **3** formed of a resilient material such as foamed plastics material." See US '250, col. 3, lines 33-36. Nowhere does US '250 disclose, teach or suggest replacing the rigid material of waist plate **1**, upstanding portion **22** and back plate **21** with a flexible composite that comprises a foam. Moreover, nowhere does US '250 disclose, teach or suggest a sandwich construction (claim 4) for the back plate of the harness, whether of two layers of foam sandwiching a stiffer material (claim 5) or two layers of stiff material sandwiching a layer of foam (claim 6). Applicant therefore respectfully submits that independent claim 1, as well as claims 2-6 which depend from claim 1, would not have been obvious in light of US '250 because US '250 does not disclose, teach or suggest all the elements of claims 2-6 (or even independent claim 1). Moreover, US '250, with its waist plate, upstanding portion and back plate of *rigid* plastic material, arguably teaches away from the instant claims requiring a resilient flexible shoulder panel of a composite material comprising a foam, and flexible mounting plate for a cylinder.

Obviousness by US 5,954,250 and US 4,498,471

Claim 20 is rejected as obvious in light of US '350 and Kantz et al. (US 4,498,471 – hereinafter "US '471"). Applicant respectfully disagrees. Claim 20, in addition to the requirements of claim 19, recites that the gas cylinder has a manifold, in which the manifold includes a port for connecting a breathing-gas line from the cylinder to a face mask (i.e. – a first inlet line from the gas cylinder to the breathing apparatus) and a connector for connecting the breathing apparatus to an additional fluid supply line (i.e. – a second inlet line from a different fluid supply line to the breathing apparatus). Thus, claim 20 requires two fluid supply lines (inlet lines) into the breathing apparatus. In

contrast, US '471, Figure 1 show two fluid supply lines **74** and **82** and, while the first fluid supply line **74** is connected to a lung demand valve **70** (and thus is an inlet line to a breathing apparatus) the second fluid supply line **82** is connected to a gauge which is not an inlet to a breathing apparatus. US '250, the primary reference, does not disclose all the elements of claim 19 (namely, the two connectors – one detachable and one non-detachable, as discussed above) or dependent claim 20 (the two inlet fluid supply lines to a breathing apparatus). Combining US '471 with US '250 does not help, because, as described above, US '472 also does not disclose or suggest two inlet fluid supply lines to a breathing apparatus. Applicant therefore respectfully submits that claim 20 would not have been obvious in light of US '250 combined with US '471 because the combination does not disclose, teach or suggest all the elements of claim 20.

For at least the reasons detailed above, Applicant respectfully submits that the claims are not anticipated and would not have been obvious in light of the cited prior art. Applicant submits that the claims are now in condition for allowance, and early notice to that effect is respectfully requested. The Examiner is requested to telephone the undersigned if any matters remain outstanding so that they may be resolved expeditiously.

Applicants believe that a three-month extension of time is required and so \$1020.00 is being withdrawn from deposit account number 19-4972 to cover the three-month extension fee. However, in the event that additional fees are due, Applicants request that deposit account number 19-4972 be charged for any additional fees that may be required for the timely consideration of this application.

Date: July 14, 2007

Respectfully submitted,

/Barbara J. Carter, Reg. #52703/
Barbara J. Carter
Registration No. 52,703
Attorney for Applicant
Bromberg & Sunstein LLP
125 Summer Street
Boston, Massachusetts 02110-1618
Tel: (617) 443-9292
Fax: (617) 443-0004

01050/00128 701038.1

Amendments to the claims

Claim 1 is amended to recite that “the resilient characteristics of the panel are such that the panel is resilient to deformation and the harness substantially retains an operational configuration whilst not in use”. Support for this amendment is found in the specification